**SNC2D Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Science Fair Lab Report Evaluation Scheme**

**THINKING & INVESTIGATION: /20 TI**

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| **Section** | **Level  1 (50-59%)** | **Level 2 (60-69%)** | **Level 3  (70-79%)** | **Level 4  (80-100%)** |
| Introduction  /7 | -Background information is provided although it is largely irrelevant  -Purpose for completing experiment is unclear, lacking detail, and/or inappropriate to the lab  -Hypothesis is in the not in the form if,…then,…because...  -Scientific reasoning provided does not support the hypothesis or is not provided | -Background information is provided; some information may not be relevant  -Purpose for completing experiment is stated, although it may lack clarity, detail, and/or appropriateness to the lab  -Hypothesis is in the not fully in the form if,…then,…because...  -Scientific reasoning provided does not fully support the hypothesis | -Background information is provided; one piece of information may not be relevant  -Detailed and appropriate purpose for completing experiment is stated, although it may lack clarity  -Hypothesis is in the form if,…then,…because...  -Scientific reasoning is provided but may not fully support the hypothesis | -Relevant background information is provided  -Detailed and appropriate purpose for completing experiment is clearly stated  -Hypothesis is in the form if,…then,…because...  -Scientific reasoning supporting hypothesis is provided and appropriate |
| Discussion  /10 | -Results are not explained with relevant theory  -Results are not related to the purpose and hypothesis  -Differences between hypothesis and results are provided, but inadequately explained, and not supported with evidence from the experiment and/or relevant theory  -Results are not compared to similar investigations (i.e. classmates and/or body of research).  -Human error rather than experimental error is discussed  -Flaws with the experimental design are not identified  -Suggestions for improving the experimental design are not identified | -Results are explained partially with theory that is inadequately detailed, and/or lacks relevance  -Results are related to the purpose or hypothesis of the lab only, not both, and relationship is unclear and/or indirect  -Differences between hypothesis and results are inadequately explained, and supported with insufficient evidence from the experiment and/or relevant theory  -Results are compared to similar investigations (i.e. classmates and/or body of research). Differences are inadequately discussed/explained  -Only one experimental error, not human error, is discussed and related to how they affect the results, although whether the error increases/decreases the magnitude of the result is not indicated consistently  -Only one flaw in the experimental procedure is identified, but the flaw may not have significantly affected the results  -Only one suggestion for improving the design of the experiment is provided, but may not be related to the error stated | -Results are explained partially with theory that may lack relevance  -Results are related to the purpose or hypothesis of the lab only, not both  -Differences between hypothesis and results are explained and supported with some evidence from the experiment and/or relevant theory  -Results are compared to similar investigations (i.e. classmates and/or body of research). Differences are discussed, but not adequately explained  -At least two experimental errors, not human error, are discussed and related to how they affect the results, although whether the error increases/decreases the magnitude of the result is not indicated consistently  -At least two flaws in the experimental procedure are identified, but the flaws may not have significantly affected the results  -At least two suggestions for improving the design of the experiment are provided, but may not be related to the errors stated | -Results are explained with relevant theory  -Results are directly and clearly related to the purpose and hypothesis of the lab  -Differences between hypothesis and results are explained logically and supported with appropriate evidence from the experiment and relevant theory  -Results are compared to similar investigations (i.e. classmates and/or body of research). Differences are discussed and explained  -At least two experimental errors, not human error, are discussed and related to how they affect the results (i.e. does the error increase/decrease the magnitude of the result?)  -At least two significant flaws in the experimental procedure are clearly identified  -At least two suggestions for improving the design of the experiment are provided, and related to the errors stated |
| General  /3 | -References provided are not scholarly, and are not reputable sources | -Few references provided are scholarly, and are reputable sources | -Some references provided are scholarly, and are reputable sources | -All references provided are scholarly, and are reputable sources |

***NOTES:***

**COMMUNICATION: /20 C**

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| **Section** | **Level  1 (50-59%)** | **Level 2 (60-69%)** | **Level 3 (70-79%)** | **Level 4 (80-100%)** |
| Title  /1 | -The title does not identify the purpose of the lab, and/or may not relate specifically to the lab | -The title does not clearly identify the purpose of the lab | -The title clearly and specifically details the purpose of the lab, although sounds similar in wording to the purpose | -The title clearly and specifically details the purpose of the lab without restating the purpose verbatim |
| Abstract  /4 | -The purpose, method, key findings/results, and major conclusions are not clear, and/or not concise  -May exceed 200 words | -The purpose, method, key findings/results, and major conclusions are not fully clear and/or concise  -May exceed 200 words | -The purpose, method, key findings/results, and major conclusions are clear but not concise.  -Does not exceed 200 words | -The purpose, method, key findings/results, and major conclusions are clear and concise  -Does not exceed 200 words |
| Methods (with subsections “Materials” and “Procedure”)  /5 | **-Subsection “Materials”:** list format,, and includes only some equipment (and software if applicable) used for data collection, which may be missing brand name and model number for electronic lab appliances. A lot of materials listed are irrelevant to data collection (i.e. pencil, ruler, etc.)  Three or more detailed and specific quantities and/or concentrations are missing  **-Subsection “Procedure”:** may not be in writer’s own words  -Steps may be in list format instead of paragraph(s)  -Explanation of events is incomplete  -Missing a few details which are important to being able to repeat the lab through the instructions  -Irrelevant/redundant details may be included (i.e. “Calculations were performed” or “glassware was obtained”)  -Safety procedures may not be mentioned  - Lacks clarity and/or conciseness | **-Subsection “Materials”:** list format, and includes most equipment (and software if applicable) used for data collection, including brand name and model number for electronic lab appliances. Some materials listed are irrelevant to data collection (i.e. pencil, ruler, etc.)  -Two  detailed and specific quantities and/or concentrations are missing  **-Subsection “Procedure”:** sometimes In the writer’s own words  -May have errors in paragraph structure (i.e. missing indentations, and/or paragraph needs to be broken up into smaller paragraphs)  -Missing two or more details which are important to being able to repeat the lab through the instructions  -Irrelevant/redundant details may be included (i.e. “Calculations were performed” or “glassware was obtained”)  -Safety procedures are mentioned briefly  -Lacks consistent clarity and/or conciseness | **-Subsection “Materials”:** list format, and includes all equipment (and software if applicable) used for data collection, including brand name and model number for electronic lab appliances. One to two materials listed are irrelevant to data collection (i.e. pencil, ruler, etc.)  -One detailed and specific quantity and/or concentration is missing  **-Subsection “Procedure”:** mostly In the writer’s own words  -Paragraph structure  -Explained most of what was actually done  -Missing one or two details which are important to being able to repeat the lab through the instructions  -Irrelevant/redundant detail may be included (i.e. “Calculations were performed” or “glassware was obtained”)  -Safety procedures are mentioned briefly  -Clear and concise | **-Subsection “Materials”:** list format, and includes all and only equipment (and software if applicable) used for data collection, including brand name and model number for electronic lab appliances  -Detailed and specific quantities and/or concentrations included  **-Subsection “Procedure”:** In the writer’s own words  -Proper paragraph structure  -Explained what was actually done  -Detailed enough for someone else to repeat the lab  -Irrelevant/redundant details are excluded (i.e. “Calculations were performed” or “glassware was obtained”)  -Safety procedures are mentioned briefly when necessary  -Clear and concise |
| Results  /6 | -graphs and tables are included but missing quantitative observations and/or missing important data) and may be missing titles and labels  - written description is absent or misses key findings/results  -sample calculations are disorganized and/or not present | -graphs and tables are included (may be missing quantitative observations, and/or missing some data) with titles and labels that are lack clarity and/or detail  -written description misses some key findings/results  -sample calculations appear organized but are challenging to follow | -graphs and tables are included (qualitative and quantitative observations) with titles and labels that are may lack clarity or detail  -a written description of the key findings/results is provided  -sample calculations are very organized and can be followed upon inspection | -graphs and tables are included (qualitative and quantitative observations)  with appropriate titles and labels that are clear and detailed  -a clear and concise written description of the key findings/results is provided  -sample calculations are very organized, clear, and easy-to-follow |
| Conclusion  /2 | -results of the are not summarized in this section  -does not refer to the hypothesis and/or purpose  -lacks clarity and/or conciseness | -results of the experiment may be too detailed, or insufficient in detail, and not related to the purpose of the lab  -unclear if hypothesis is supported by data or not  -May lack clarity and/or conciseness | -summarizes the results of the experiment, although does not relate directly to the purpose of the lab  -states if the data supported the hypothesis, but establishes causality with words like “proves” or “disproves”  -clear and concise | -provides a clear summary of the results of the experiment in relation to the purpose of the lab  -states directly if the data supported the hypothesis  -clear and concise |
| General  /2 | -Report may not be typed, and line spacing is improper  -The layout of each page and all the text and subtitles has several APA format errors  -Past tense, passive voice is not consistently used or is absent  -Writing lacks clarity and/or conciseness  -There are several spelling or grammar errors  -References are in APA format with proper in-text citations and a separate “References” page (with two or more errors)  -in-text citations are missing where needed  -Editing is not evident throughout | -Report is typed, line spacing may be improper  -The layout of each page and all the text and subtitles has three or more APA format errors  -Past tense, passive voice is not consistently used except when discussing theory  -Writing is mostly clear but may lack conciseness  -There are three or more spelling or grammar errors  -References are in APA format with proper in-text citations and a separate “References” page (with two or more errors)  -Some information that is not from the course content and experiment have in-text citations  -The work shows some editing | -Report is typed with 1.5 line spacing  -The layout of each page and all the text and subtitles has one or two APA format errors  -Past tense, passive voice is used throughout except when discussing theory  -Writing is clear and concise  -There are one or two spelling or grammar errors  -References are in APA format with proper in-text citations and a separate “References” page (no more than one error)  -Most information that is not from the course content and experiment have in-text citations  -The work shows considerable editing | -Report is typed with 1.5 line spacing  -The layout of each page and all the text and subtitles is in proper APA format throughout  -Past tense, passive voice is used throughout except when discussing theory  -Writing is consistently clear and concise  -There are no spelling or grammar errors  -All references are in APA format with proper in-text citations and a separate “References” page  -All information that is not from the course content and experiment have in-text citations  -The work shows thorough editing |